

ABSTRACT

A Carrier Network includes computer network equipment defining a Cable Network and an Intermediate Network which extend between multiple users and a Service Provider for conveying data therebetween. The Cable Network includes a shared communications medium joining the users with the Intermediate Network. Users compete for network access across the shared communications medium in conveying data. Software that manages the network access of the users includes computer-executable instructions for monitoring bandwidth consumption by each user for a time interval, forecasting bandwidth consumption of each user for a future time interval, prioritizing the users for allocation of bandwidth, allocating bandwidth to each user for determining a bandwidth allowance of such user for the future time interval, and limiting bandwidth consumption of each user during the future time interval to that user's bandwidth allowance.